

# *Exhibit C*

**PRIVILEGED STATUS OF THIS REPORT**

***In order to preserve the privileged and non-discoverable status of this opinion we advise you to maintain its confidentiality and to limit its distribution to authorized Bell Atlantic personnel who participate substantially in decisions regarding any action to be taken on our legal advice.***

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***Bell Atlantic  
Silent Prompting for BA Dialer  
Infringement and Patentability Investigation***

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***December 18, 1998***

***by***

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List of Exhibits

<u>No.</u>	<u>Exhibit</u>
1	B.A. Dialer Call Flow diagram

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**I. INTRODUCTION**

Bell Atlantic has developed a voice commanded dialing system for placing telephone calls in response to spoken commands. The system, known as "BA-Dialer", is a Speaker Independent (SIR), large vocabulary, voice dialing application developed by Bell Atlantic's Advanced Technologies group to prototype state-of-the-art Automated Speech Processing (ASP). The basic speech recognition technology was developed by SRI, International and commercialized through Nuance Communications, Inc. Nuance licenses the recognition engine and the recognition client (i.e., port) to developers. The BA-Dialer is currently running on three platforms: a SUN Sparc20, Pentium 200, and a Periphonics VAS.

The BA-Dialer includes a number of features, including call answering, caller ID capture, speech capture, billing information processing and call transfer. Additional features of the BA-Dialer include system prompts, and call handling features (i.e., Call completion, "Listing", send to mailbox).

One specific feature of this call handling is "Voice Dialing with Silent Prompting" which is the subject of this opinion. Specifically, after a caller has indicated a person to be called, the system informs the caller that the indicated person is being dialed. The caller then has a predetermined period of time (i.e. 1.8 seconds) during which to indicate to the system that another feature is desired. The system then routes the caller to the indicated feature. For example, the caller may indicate to the system during the predetermined period of time that the voice mail of the indicated person is desired. The BA-Dialer then routes the caller to the indicated voice mail. In the absence of an alternative spoken command, the system outdials the telephone number of the indicated person after expiration of the period of time.

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## II. VOICE DIALING WITH SILENT PROMPTING

Bell Atlantic personnel disclosed the Voice Dialing with Silent Prompts in a meeting on September 2, 1998. A copy of a descriptive drawing received at that meeting is attached as Exhibit

1. Our understanding of the Voice Dialing with Silent Prompts, as summarized below, is based on the information provided at the disclosure meeting. The description of the Voice Dialing with Silent Prompts will not include the details of the BA-Dialer system.

The BA-Dialer processes the speech input of the caller to extract the spoken name of the party to be called and convert the speech into a standard text format such as ASCII (10). The resultant text is compared to names in a directory (20) and, if a match is found, the system identifies the corresponding phonebook entry (30). An audio "wave" file associated with the name is opened, and played for the user to verify that the correct listing has been identified and selected (40). If the wave file corresponding to the spoken name is not found, the digits of the telephone number are instead converted to audio and will be played (50). After this occurs, the system delays outdialing by waiting for a predetermined period of time before placing the call (60).

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During this delay period, a user may cancel the call (70), request a listing (80), leave a message (90), request voice mail (100), or select other options. If the system receives no instructions, the telephone number is dialed (110).

The delay period was selected based on studies performed by Bell Atlantic. It was determined that delay should be in a range of 1.2 seconds to 2.3 seconds, with an optimal time being 1.8 seconds. This range was selected after the studies indicated that users detected a perceptible delay if the time period was greater than 2.3 second; delays less than 1.2 seconds did not allow sufficient time for the user to involve alternate functions without rushing.

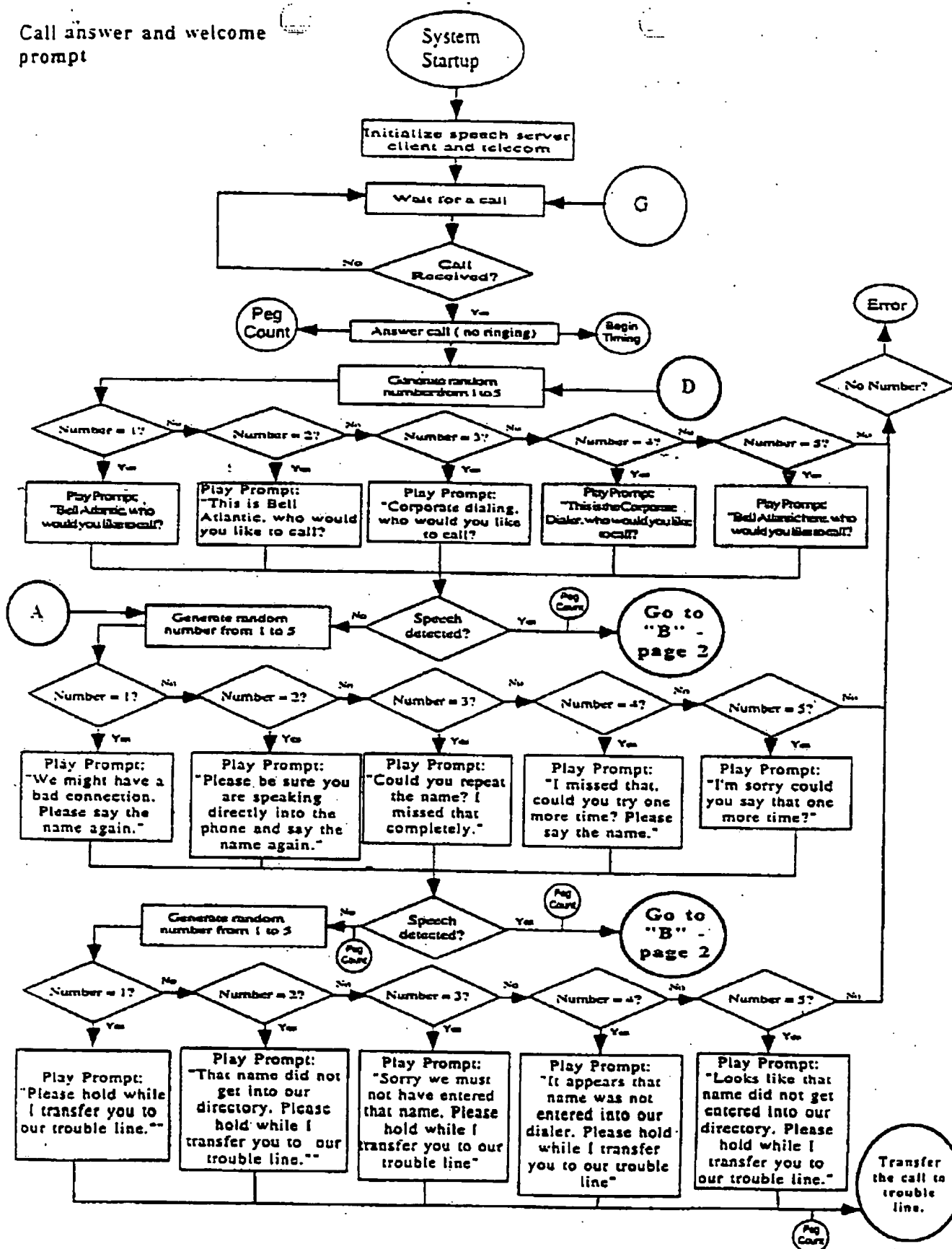


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Investigation  
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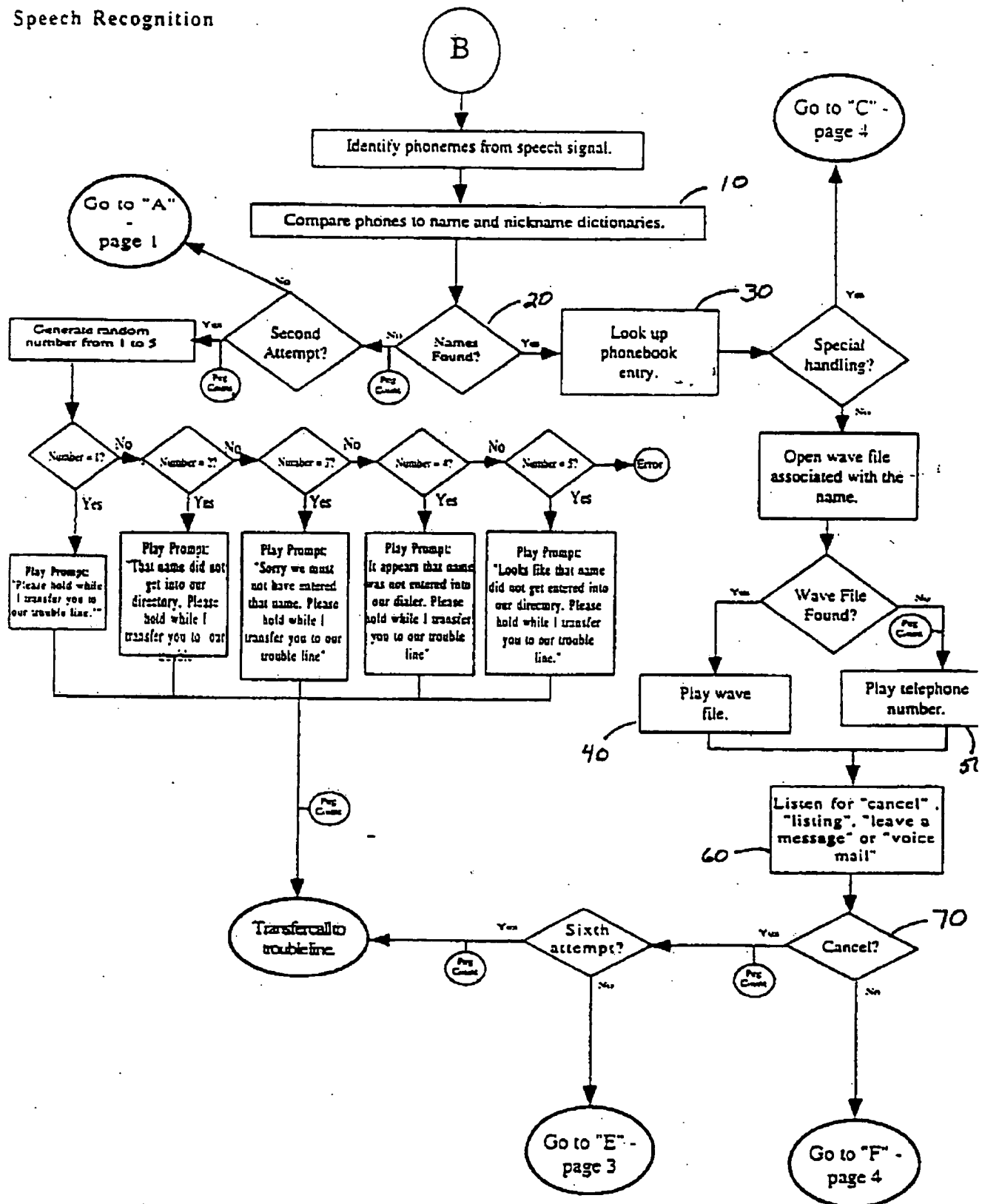


Call answer and welcome prompt



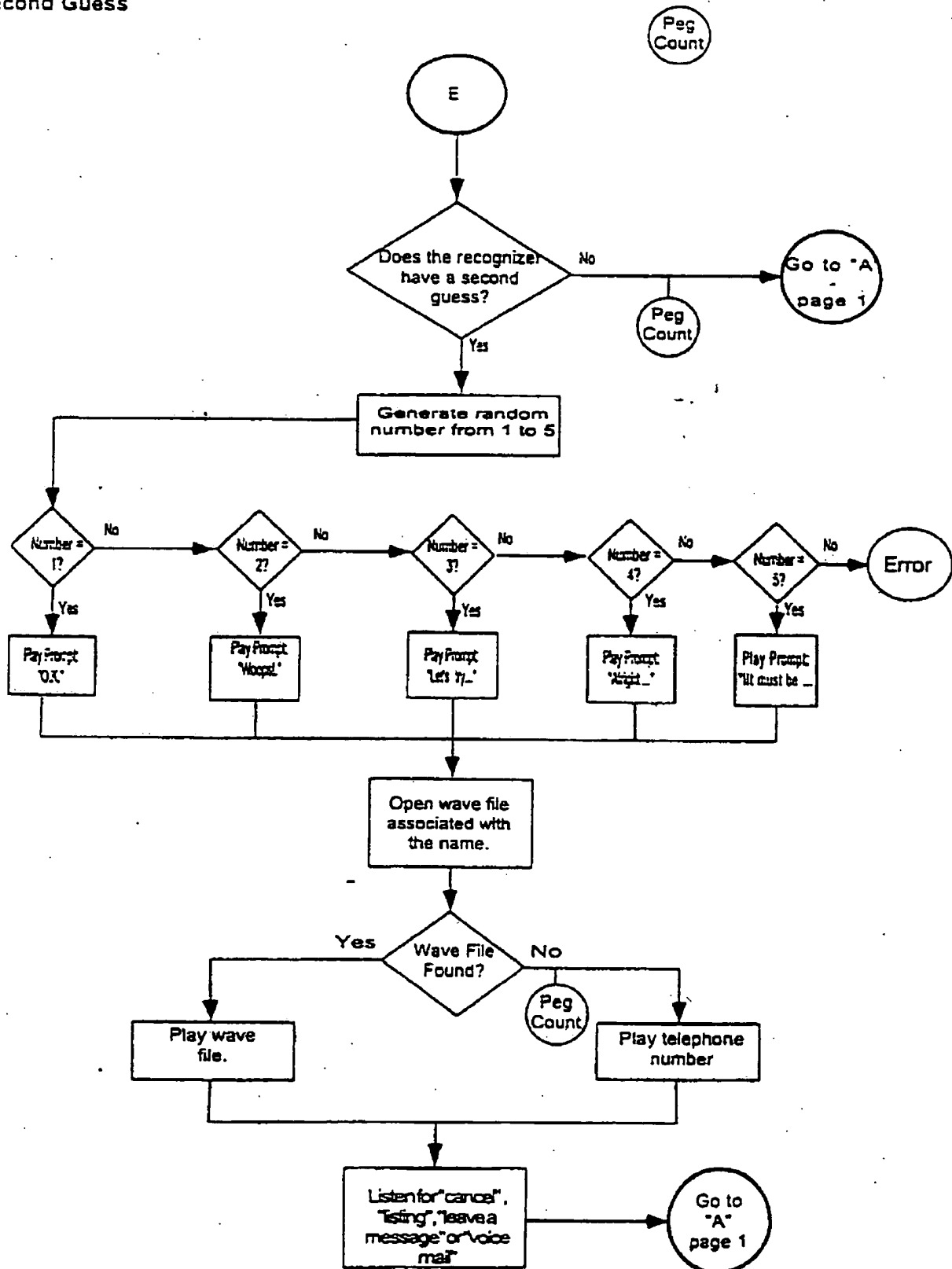
## BA-Dialer Call Flow - page 2

## Speech Recognition



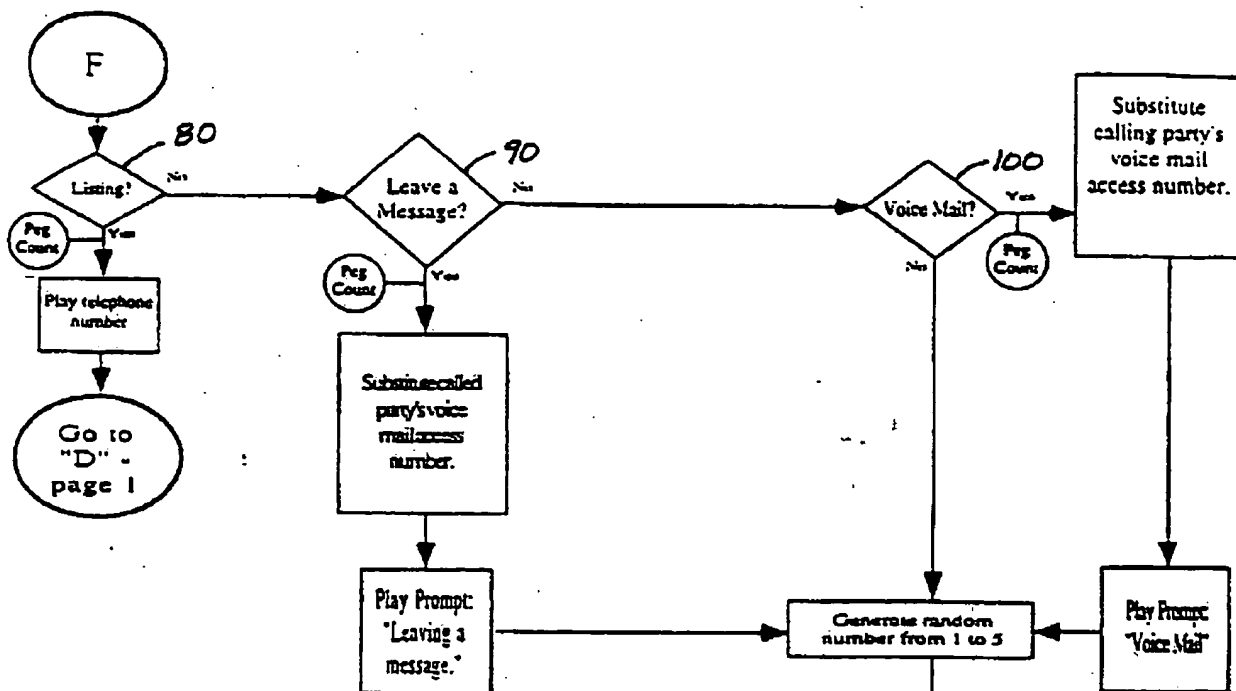
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## Second Guess

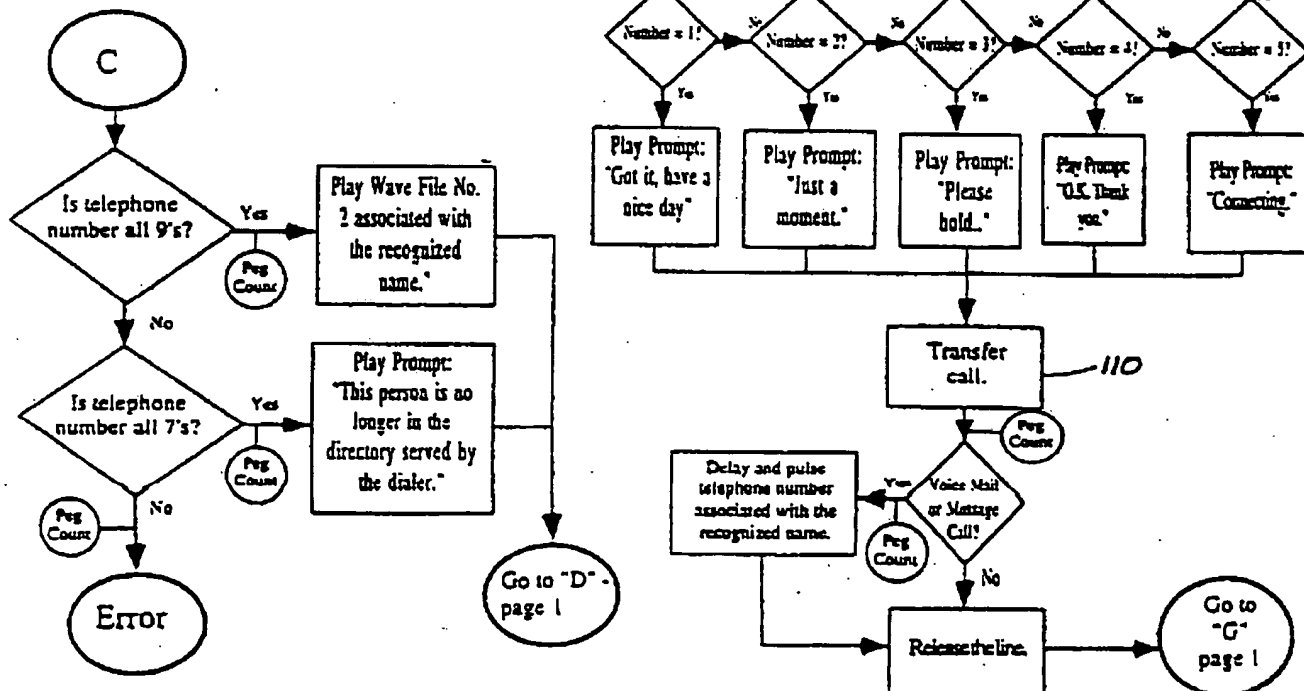


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## Call Handling



## BA-Dialer - Special Handling



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